Coyote Creek Engineer's Report on Interim Flood Control Improvements from San Francisco Bay to Highway 237

June 1983

Santa Clara Valley Water District

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SANTA CLARA VALLEY WATER DISTRICT

COYOTE CREEK ENGINEER'S REPORT
on
Interim Flood Control Improvements
from San Francisco Bay to Highway 237

Prepared by

Jose L. Ortiz, P.E.
Associate Civil Engineer

and

Randall R. Talley, P.E.
Division Engineer

Robert R. Smith, P.E.
Head, Project Development Branch

SANTA CLARA VALLEY WATER DISTRICT
LIBRARY
5750 ALMADEN EXPRESSWAY
SAN JOSE, CALIFORNIA 95118

John T. O'Halloran
General Manager

George Korbay, P.E.
Flood Control Manager

JUNE 1983

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Introduction

This report presents the results of an investigation of the disastrous flooding which occurred from Coyote Creek north of Highway 237 in the March 1983 storms.

Background

Coyote Creek northerly of Highway 237 has the capcity to contain less than 2000 cubic feet per second (cfs). The flow in March 1983 was an estimated 5400 cfs, causing the overtopping and subsequent erosion of the levees between Highway 237 and Dixon Landing Road. Floodwaters covered the area between Guadalupe River and Lower Penitencia Creek and from Highway 237 north to the Fremont airport (See Figure 1).

Flooding around the San Jose Sewage Treatment Plant was reportedly within half a foot of entering the buildings. Floodwaters forced evacuation of Alviso residents and overtopped the Leslie Salt Pond levee. East of Coyote Creek floodwaters overtopped Highway 17 and flooded portions of the Milpitas Manor. Traffic on Highways 17 and 237 was blocked.

Following numerous meetings and discussions with affected property owners and District staff, an interim flood control project has been developed which would provide a greater level of ~~some~~ protection to the Alivso and Milpitas areas and properties adjacent to Coyote Creek north of Highway 237.

Project Description

The proposed flood control measures would provide protection against flooding from events of comparable magnitude to that which occurred in March 1983. The proposed measures would be constructed at various sites along Coyote Creek as shown in Figure 2 and would consist of the following work:

Site #1. The existing levee that controls tidal influence and is located north of the City of San Jose's sewage treatment plant sludge ponds would be lowered approximately three feet to elevation 7.0 (NGVD) for a distance of 800 feet. Two 48-inch tide gates

would be placed in the lowered levee in addition to the two existing gates to drain freshwater flooding below elevation 7.0 feet behind the levee.

Site #2. A levee would be constructed to elevation 10.0 feet across the drainge channel between the salt pond levee and the sludge pond levee. A 48-inch outfall with flap gates would be placed in the proposed levee to accommodate drainage from the treatment plant and to prevent any tidal influence in the sludge pond area.

Site #3. A levee would be constructed to elevation 10.0 feet on private property around the Kingsford Company charcoal operation and would conform to the access road adjacent to the east. The City of San Jose's chain link fence securing the bomb disposal site and flammable storage building would be relocated adjacent to the proposed outside toe of this levee.

Site #4. The existing roadway would be lowered to elevation 7.0 feet for a distance of 450 feet.

Site #5. During the March 1983 flooding, most of the ramp betweeen the top of sludge pond levee and the access road was washed away. The remainder of the ramp would be removed to allow overflows to the west of the creek to reach the outfall weir at Site #1.

Site #6. A levee would be constructed to elevation 10.0 feet between the sludge pond levees. Existing vehicular access would be maintained over the new levee by providing appropriate ramps or road grades.

Site #7. Debris and selected vegetation will be removed between the west bank of the creek and the sludge pond levee to increase the discharge rating of the constricted section of the creek. No mature riparian vegetation would be removed.

Site #8. A levee would be constructed to elevation 13.0 feet between the sludge pond levee and the creek levee. Existing vehicular access would be maintained over the new levee by providing appropriate ramps.

Site #9. Material is proposed to be taken from the area west of the creek to construct the levee at Site #8. The excess material from Sites #1, #4 and #5 will be used to construct the proposed levees at Sites #2, #3 and #6.

Site #10. An eight-inch high asphalt dike or concrete curb would be constructed along the existing access road to the City of Milpitas's sewage pumping station for approximately 2,300 feet in the section parallel to Highway 17. This would prevent floodwaters from crossing over Highway 17 into Milpitas Manor. At the entrance to the pumping station, about 160 feet of the section of the road running east and west will be lowered one foot. This will provide an outlet to the north for floodwaters on the property east of the creek. At the southerly end of the proposed dike or curb, an earth berm will be constructed to elevation 13.0 feet across the Highway 17 roadside ditch and will confrom to the access road and the highway. A 36-inch CMP will be placed in the berm to accommodate highway drainage.

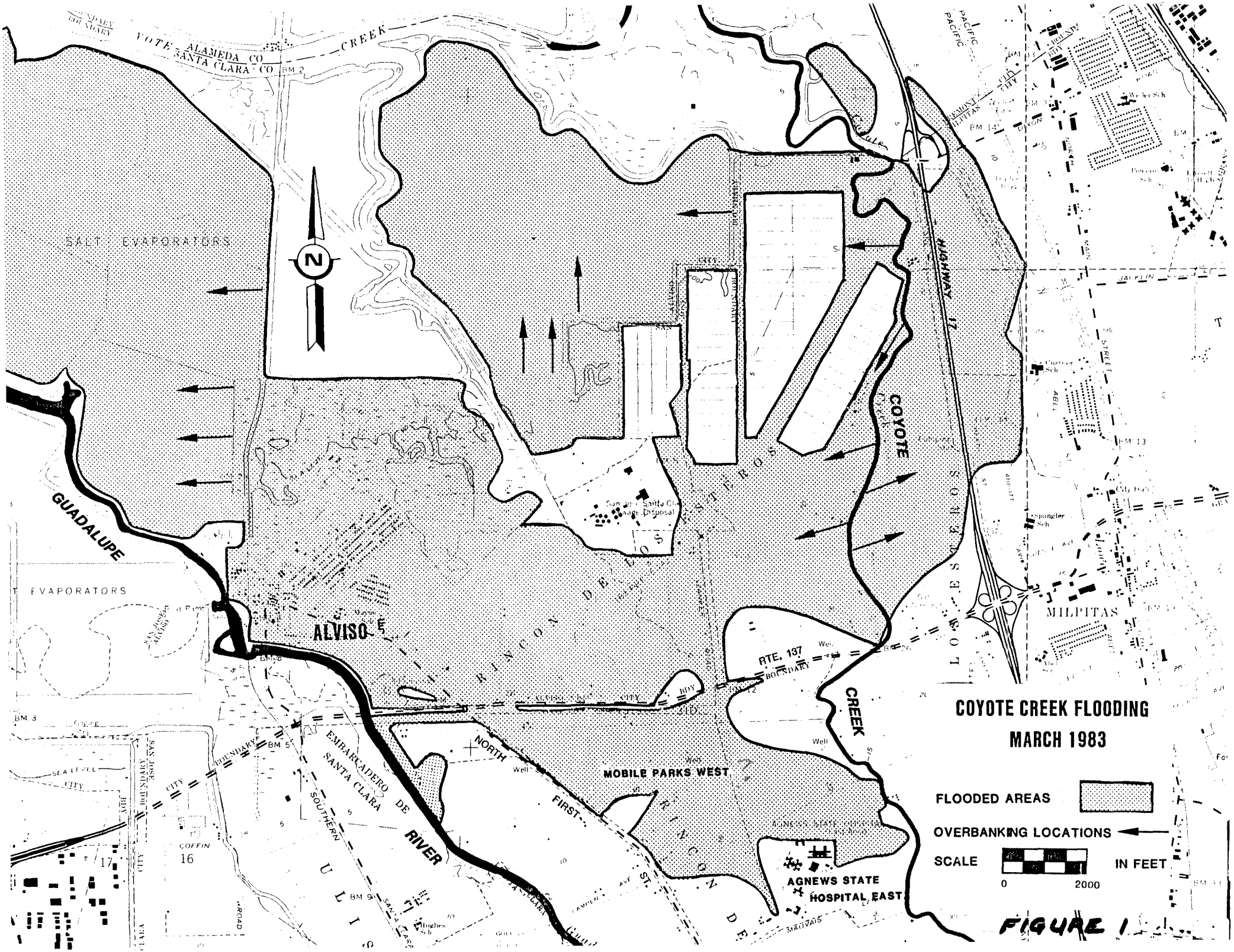
Site #11. The east bank levees would be repaired to the condition prior to the March 1983 flooding.

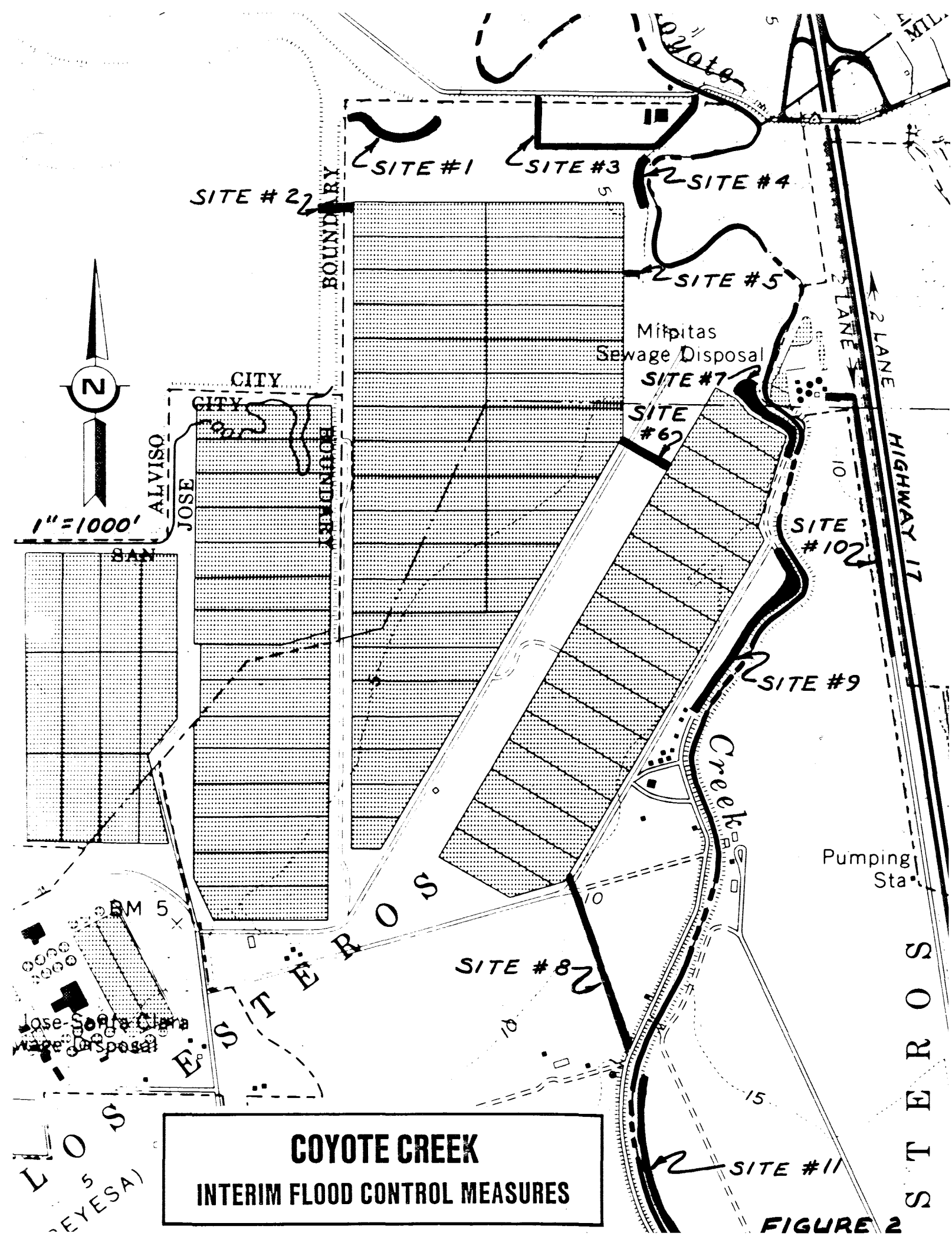
Right of entry permits to accommodate the proposed interim flood control measures have been secured from the Cities of San Jose and Milpitas and from the owner of the property where the charcoal operation is situated. A right of entry would also be secured from the owner of the property between the creek and Highway 17. These permits shall remain in effect for a period of four years from the date of execution.

The estimated project cost is $300,000 and has been included in the East Zone Maintenance Program of the 1983-84 budget. The proposed work would be completed by October 1983.

Therefore it is recommended the

BK
Flood Control Manager


COYOTE CREEK FLOODING
MARCH 1983
FLOODED AREAS
OVERBANKING LOCATIONS
SCALE
IN FEET
0
2000
FIGURE 1
SALT EVAPORATORS
GUADALUPE
ALVISO
RIVER
COYOTE
CREEK
HIGHWAY 17
MILPITAS
MOBILE PARKS WEST
AGNEWS STATE HOSPITAL EAST
RTE. 137
NORTH
FIRST
SOUTHERN
PACIFIC



COYOTE CREEK
INTERIM FLOOD CONTROL MEASURES

FIGURE 2

EAST FLOOD CONTROL ZONE

